

Remarks

Claims 1-15 and 19-24 were pending in the application. Claims 1-6, 8-13, and 20-24 were rejected. Claims 7, 14, 15, and 19 were previously withdrawn. No claims were merely objected to and no claims were allowed.

Response to Argument Section of December 28, 2007 Office Action

In the last paragraph of §5, there was the assertion that Applicants argued "against the references individually..." This is unsubstantiated. There was no indication of how Applicants were asserted to be arguing against the references individually. In addressing the individual references, Applicants pointed out several areas where the July 13, 2007 Office action misidentified or mischaracterized features of those references. These were relevant both to the lack of motivation to combine and to the failure of the combination to yield the claimed invention.

At lines 10-14 of page 5, the Office dismissed Applicants' comments which were based upon the English language abstracts of the cited references, the Office asserting that "translation of the document is available through the EPO website free of charge by pushing a single button." However, if the Office is citing the references for something beyond their abstracts, the burden is on the Office to provide the translation and explicit citation. MPEP 706.02 specifies: "If the document is in a language other than English and the examiner seeks to rely on that document, a translation must be obtained so that the record is clear as to the precise facts the examiner is relying upon in support of the rejection."

Further specific comments made from line 1 of page 5 through line 6 of page 6 are addressed in the context of the respective rejections below.

Finality

§6 of the Office action at page 6 asserted: "Applicant's amendment necessitated the new ground(s) of rejection..." However, there were no such amendment and no new grounds. Had there been a new grounds, it would not have been necessitated by the prior amendment. Any new action purporting to cure the deficiencies of the examination noted in this Reply and noted in the prior amendment must be non-final if not wholly necessitated by any amendment. Accordingly, reconsideration and withdrawal of finality are requested.

Claim Rejections-35 U.S.C. 103

Claims 1-6, 8-13, and 20-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over YUP1756/88 in view of paper of Huque, WO96/23168, and Lagen et al. (US5076103).

Applicants respectfully traverse the rejection.

At Section 3 (Section 7 of 7/13/07 Office action), the Office action identifies four background factors under *Graham v. John Deere*. However, the Office action then fails to address these factors.

The fourth paragraph of page 3 of the Office action reads: "However, the document is concerned about the pressure of the reagents and the proper cleaning pressure. Thereby, the disclosure of YU P1756/88 encompasses providing a pressure sensor in the apparatus of YU P1756/88 in order to control the functioning of the apparatus." This statement and its application to the present claims involve bootstrapping. First, YU P1756/88 does identify a detonative cleaning apparatus. This will further become relevant in the discussion of the propriety of the combination. The discussion of reagent pressure (see the end of the first sentence of the third paragraph of page 3 of the English translation) at best (worst?) would suggest measuring reagent pressure at the reagent source(s). The reference to "cleaning pressure" appears misplaced. Nothing has been identified which would suggest a pressure probe within the vessel interior exposed to a shockwave after the shockwave exits the conduit second end/outlet. For example, the drawings of the reference do not show any such sensor in the reactor 26.

In response to these arguments previously made, the Response to Arguments section merely stated "the document is concerned about pressure in the reactor (25). See at least last paragraph on page 3 of the translation." Office action, page 5, lines 3&4. Again, the identified pressure is the reagent pressure not a shockwave pressure.

The fifth paragraph of page 3 of the Office action asserted: "Moreover, paper of Huque and WO 96/23168 teach that the use of pressure sensors was known in the art to control functioning of the pressure wave cleaning apparatuses and to ensure proper cleaning action of the apparatuses." As with the citation above, there is insufficient specificity to properly respond. The Huque reference identified an experimental set-up involving test slag samples held at the exit of a detonation tube. Paragraph spanning pages 3 and 4. This is not an actual situation

involving an apparatus and a vessel. Any pressure measurement is done in the experimental context and not in an actual use context. For example, the conduit and the samples are not exposed to the temperatures of being in an actual furnace.

The WO'168 application identifies gas, steam, or water soot blowers. WIPO abstract. There is individual adjustment of each nozzle's flow rate and pressure. Derwent abstract. There is no identification or suggestion of use in a detonative/combustive cleaning apparatus. There is no indication of a shockwave or a sensor positioned to be exposed to the shockwave.

In the Response to Arguments section at page 5, lines 9&10 it was asserted: "The applicants allege that WO'168 does not teach a pressure sensor. This is not persuasive." However, the abstract merely identifies: "Within the boiler are a number of sensors (8) for temperature, pressure, flow and these are connected to a central controller..." There has been no demonstration that any pressure sensor amongst these would be measuring any property even remotely analogous to the pressure associated with a shockwave. Rather, these appear to involve general operating parameters of the boiler.

The sixth paragraph of page 3 of the Office action reads: "It would have been obvious to an ordinary artisan at the time the invention was made to provide the apparatus of YU P1756/88 with a pressure sensor to enable control of the apparatus with reasonable expectation of success since the teaching of YU P1756/88 encompasses such and since the secondary documents teach such as conventional." This is clearly conclusory. What is the asserted meaning of "encompasses such"? The assertion of an "expectation of success" is a canard. What success is expected beyond the inherent operation of the YU reference? Where's the motivation?

In the Response to Arguments section at page 5, no reasonable attempt was made at rebuttal to the arguments above. It was merely asserted "This is not persuasive. The document deals with actual apparatus and removal of actual deposits." Office action, page 5, lines 7&8. What is meant by "deals with"? Where in Huque are pressure sensors suggested to be used associated with a sootblower and a vessel (e.g., in contrast to the experimental set-up involving test slag samples at the exit of a detonation tube which is not the context of an actual furnace or other such vessel?

The first paragraph of page 4 of the Office action asserted that "the pressure measuring probes as claimed were known in the art as evidenced by Lagen et al. ..." As is discussed in the paragraph immediately below, the question is begged of what the art is. In the paragraph

thereafter, the reference to "as claimed" is similarly rebutted by Applicants identification of numerous elements that the Office action has failed to identify in Lagen et al. and which are not, in fact, found in Lagen et al.

The third paragraph of page 4 asserts a conclusory motivation to use the Lagen et al. probe: "as pressure measuring means since Lagen et al recommends the probe for the use in high temperature and pressure environment." This is merely conclusory. Lagen et al. involves "a new and improved static pressure probe for use in high temperature supersonic wind tunnel testing." Col. 1, lines 43-45. This is not the sootblower art. There is no suggestion to adapt the probe to the sootblower art.

In the Response to Arguments section, at the final paragraph of page 5 it was asserted that "The examiner provided an explanation for the motivation statement, a simple statement that Langen [sic] et al. is not from sootblower art is not sufficient to overcome the provided motivation." No motivation was provided. Furthermore, it is not Applicants' burden to prove patentability. Clearly, the Office has failed to establish even the barest of *prime facie* cases of obviousness.

At page 4, the fourth paragraph assertion of routine optimization relative to claim 4 does not overcome the insufficiencies of the underlying rejection and could only be achieved by hindsight reconstruction given the roadmap of the present application.

Further questions are begged regarding elements not identified:

Where is the identified pressure sensor of claim 1?

Where is the aft surface with a second port of claim 8?

Where is the flat and third port of claim 9?

Where is the signal communication line of claim 11?

Where is the lateral joining and opposite first port of claim 21?

Where is the clamp of claim 22?

Where is the claim 24 identification of the space 216 surrounding the fixture 204 which holds the sensor 202?

The asserted combination does not suggest these. The Response to Arguments Section merely asserted: "the combined teachings of the applied documents... the specifics of the probe are disclosed by Langen et al at least at Figures 1, 3, 4 and the related description." Office action, page 6, lines 5&6. This is not the legally required specificity/explicitness.

Accordingly, Applicants submit that claims 1-15 and 19-24 are in condition for allowance. Reconsideration and further examination are requested. Please charge any fees or deficiency or credit any overpayment to our Deposit Account of record.

Respectfully submitted,

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